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58773 THELEN REII	7590 12/18/2007 LEN REID BROWN RAYSMAN & STEINER LLP		EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
		TOM, ALFRED			
Office Action Summary	10/606,178 Examiner	Art Unit			
<i></i>					
The MAILING DATE of this communication app	Zhiyu Lu	2618			
Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	l. ely filed the mailing date of this communication. 0 (35 U.S.C. § 133).			
Status					
<ul> <li>1) Responsive to communication(s) filed on 15 Octo</li> <li>2a) This action is FINAL. 2b) This</li> <li>3) Since this application is in condition for alloward closed in accordance with the practice under Expensive to communication(s) filed on 15 Octo</li> </ul>	action is non-final. nce except for formal matters, pro	•			
Disposition of Claims					
4)  Claim(s) 1,3-14,17-31,36 and 39-42 is/are pendously 4a) Of the above claim(s) is/are withdray 5)  Claim(s) is/are allowed.  6)  Claim(s) 1,3-14,17-31,36 and 39-42 is/are reject 7)  Claim(s) is/are objected to.  8)  Claim(s) are subject to restriction and/or Application Papers  9)  The specification is objected to by the Examine	vn from consideration. cted. r election requirement.				
10) The drawing(s) filed on is/are: a) access applicant may not request that any objection to the explacement drawing sheet(s) including the correction of the original sheet and the correction of the co	epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Do 5) Notice of Informal F 6) Other:	ate			

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#### **DETAILED ACTION**

### Response to Arguments

1. Applicant's arguments with respect to claims 1, 6 and 23 have been considered but are moot in view of the new ground(s) of rejection.

### Claim Objections

2. Claim 17 is objected to because of the following informalities:

In claim 17 line 3 of last paragraph, remove "providing" after "said code to provide".

Appropriate correction is required.

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "said first and second identification numbers" in last paragraph.

There is insufficient antecedent basis for this limitation in the claim. For examination purpose, the examiner assumes they indicate some identification numbers.

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Claim 17 recites the limitation "the first memory storage bin" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1, 3-4, 7-8, 10, 23-25, 27-28, 31, 36 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent#5465401) in view of Vilppula et al. (US Patent#6961587) and Johansson et al. (US Patent#5418837).

Regarding claim 1, Thompson teaches a modular wireless device comprising:

a shell (50 of Fig. 2) that contains electronic components including memory (284 of Fig. 8), with said memory containing system software, said system software having operating system software, software drivers and application software, with the operating system software including a storage list including information identifying services with which said application software may communicate (column 3 lines 32-36, 10 lines 23-25);

a cartridge (100 of Fig. 2) that contains a transceiver for wireless communication (104 of Fig. 10); and

an interface (106 of Fig. 10) that enables removably coupling together said shell with said cartridge and facilitates data communication between said electronic components and said

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transceiver (column 14 lines 45-62), said cartridge including a storage unit (184 of Fig. 10) containing call-processing software, a supported wireless service to which said transceiver may communicate with said operating system software including a sub-routine (inherited in order to communicate and utilize additional software) to facilitate communication between said application software and said supported wireless service in response to receiving information from said call-processing software (column 15 line 56 to column 16 line 21).

But, Thompson does not expressly disclose said operating software containing information concerning wireless communication; and said call-processing software communicates with said operating system software in response to coupling together of said cartridge with said shell. However, Thompson discloses that shell comprises wireless communication circuit and antenna (90 & 92 of Fig. 8) and cartridges provides additional wireless services (column 16 lines 5-9), which would have been obvious to one of ordinary skill in the art to recognize and modify the shell to equip operating system with information concerning wireless communication for wireless communication enablement. Thompson also discloses sensor for cartridge insertion detection (column 13 lines 17-24)

Vilppula et al. teach a shell comprises software that contains information concerning wireless communication (30, 32, 34 and 36 of Fig. 2, column 5 lines 37-50).

Johansson et al. teach having call-processing software communicates with operating system software in response to coupling together of cartridge with shell (column 2 lines 50-57, column 6 lines 38-42, Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate information concerning wireless communication into system software

taught by Vilppula et al. and actuates communication between shell and cartridge in response to coupling taught by Johansson et al. into the modular wireless device of Thompson, in order enable wireless communication function in the shell itself and provide automatic data communication.

Regarding claim 3, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

Thompson teaches wherein the shell contains a button, a display, and said electronic components further include a microprocessor (280 of Fig. 8).

Regarding claim 4, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

Thompson, Vilppula et al., and Johansson et al. teach wherein said system software includes code to identify, to said call-processing software, said wireless services, with said call-processing software including code to provide functionality to said system software to said supported wireless service upon determining said supported wireless service being outside of said wireless services by replacing said application software with replacement software (column 4 lines 7-23, column 16 lines 29-34 of Thompson; column 6 lines 3-12 of Vilppula et al.; abstract of Johansson et al.).

Regarding claim 7, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

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Vilppula et al. teach wherein said application software includes code to instruct said operating system software to register said application software with said supported wireless service (column 5 lines 37-50).

Regarding claim 8, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

Vilppula et al. teach wherein said list further includes information concerning services said shell supports (column 5 lines 41-44).

Regarding claim 10, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 8.

Thompson, Vilppula et al., and Johansson et al. teach the cartridge has means of sending to the shell information that contains the wireless communication services supported by the cartridge; and the shell has means of comparing this information to the list or array to determine which wireless communication services in the cartridge the shell is able to use (column 4 lines 7-23, column 16 lines 5-35 of Thompson; column 5 lines 37-64 of Vilppula et al.; column 6 line 65 to column 7 line 6 of Johansson et al.).

Regarding claim 31, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 2.

Thompson, Vilppula et al., and Johansson et al. teach the modular wireless device contains means for exchanging information between the shell and cartridge that contains parameters used

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for data communications, whereby the cartridge can obtain data communication parameters from the shell (column 10 lines 55-65, column 15 line 56 to column 16 line 4 of Thompson).

Regarding claim 36, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

Johansson et al. teach wherein the device has a mechanism that triggers automatic exchange of control configuration information over the interface when the cartridge is inserted into the shell (column 2 lines 50-52, column 5 lines 15-30)

Regarding claims 39-40, Thompson, Vilppula et al., and Johansson et al. teach the limitations of claims 1 and 31.

Thompson teaches wherein the cartridge includes a software-defined radio that is able to reconfigure its hardware based on different types or modes of software in the cartridge (column 3 lines 54-60, column 16 lines 22-35).

Regarding claim 41, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

Thompson teaches wherein said transceiver includes baseband hardware (Fig. 10, column 3 line 52 to column 4 line 6).

Regarding claim 42, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

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Thompson teaches wherein said transceiver includes RF hardware (Fig. 10, column 3 line 52 to column 4 line 6).

Regarding claim 27, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

Thompson, Vilppula et al., and Johansson et al. teach further including claim 27 as explained in claim 23 below.

Regarding claim 23, Thompson, Vilppula et al., and Johansson et al. teach a modular wireless device as explained in response to claim 1 above, where Thomas, Vilppula et al., and Johansson et al. teach a locaking mechanism in the shell that prevents the shell from accessing the supported wireless service and a means for unlocking the locking mechanism (column 17 lines 36-62 of Thomas; column 7 line 64 to column 8 line 13 of Vilppula et al.; column 7 lines 26-34).

Regarding claims 24 and 28, Thompson, Vilppula et al., and Johansson et al. teach the limitations of claims 23 and 27.

Vilppula et al. teach the means for unlocking the locking mechanism consists of a user entering a pass code into the shell (column 7 line 64 to column 8 line 30).

Regarding claim 25, Thompson, Vilppula et al., and Johansson et al. teach the limitation of 23. Vilppula et al. teach the means for unlocking the locking mechanism consists of the shell obtaining a pass code from the cartridge (column 7 line 64 to column 8 line 13).

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5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent#5465401) in view of Vilppula et al. (US Patent#6961587), Johansson et al. (US Patent#5418837), and Shin et al. (U.S. Patent#6198946).

Regarding claim 5, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 4.

But, Thompson, Vilppula et al., and Johansson et al. do not expressly disclose wherein the system software contains a first version number; the replacement software contains a second version number; and wherein the cartridge and shell have a means to exchange the first and second version numbers to determine whether the system software should be replaced.

Shin et al. teach the system software contains a first version number; the replacement software contains a second vision number; and wherein the wireless communication device has a means to exchange the first and second version numbers to determine whether the system software should be replaced (column 2 lines 56-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate checking software version numbers for upgrade taught by Shin et al. into the modular wireless device of Thompson, Vilppula et al., and Johansson et al., in order to distinguish whether the system software requires upgrade.

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6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent#5465401) in view of Vilppula et al. (US Patent#6961587), Johansson et al. (US Patent#5418837), and Clark (US Patent#6296183).

Regarding claim 6, Thomas teaches a modular wireless device comprising:

a shell (50 of Fig. 2) that contains electronic components including memory (284 of Fig. 8), with said memory containing system software having operating system software, software drivers and application software, with said operating software containing information concerning communication, with the operating system software including a storage list including information identifying services with which said application software may communicate (column 3 lines 32-36, 10 lines 23-25);

a cartridge that contains a transceiver (104 of Fig. 10);

an interface (106 of Fig. 10) that enables removably coupling together said shell with said cartridge and facilitates data communication between said electronic components and said transceiver (column 14 lines 45-62), said cartridge including a storage unit (184 of Fig. 10) containing call-processing software to communicate to said operating system software a supported wireless service to which said transceiver may communicate, with said operating system software including a sub-routine (inherited in order to communicate and utilize additional software) to facilitate communication between said application software and said supported service in response to receiving information from said call-processing software (column 15 line 56 to column 16 line 21), said system software further including code to identify to said call-processing software said wireless services (inherently included in order for the shell to recognize and utilize said call-processing software from cartridge for wireless services, column 16 lines 5-

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21), with said call-processing software including code to provide functionality between said system software and said supported wireless services by replacing said application software with replacement software (column 16 lines 22-35).

But, Thomas does not expressly disclose said system software being associated with a first network operator and containing a first identification number that uniquely identifies the first network; said operating software containing information concerning wireless communication; said call-processing software including code to provide functionality between said system software and said supported wireless services by replacing said application software with replacement software containing a second network operator identification number; and a recognition mechanism, included in said cartridge, to determine whether said first and second identification numbers match with said code to provide providing said functionality in response to said recognition mechanism ascertaining said first and second identification numbers are different.

However, Thomas discloses replacing or upgrading with cartridge to equip different wireless network capability (column 16 lines 5-35, where obviously ascertains having different network operator identification number in order to suit different network usage because there is no need to replace or upgrade the wireless modular device with same network capability while needing capability for another network). Thomas also discloses that the cartridge includes processor and memory to perform various computation applications (column 16 lines 35-54, Fig. 10), which would have been obvious to one of ordinary skill in the art to recognize that the cartridge itself is capable to utilize code for network software upgrade verification and compatibility computations.

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Vilppula et al. teach a modular wireless device comprising a shell and a cartridge, where software in the shell contains information concerning wireless communication (30, 32, 34 and 36 of Fig. 2, column 5 lines 37-50) and call-processing software include identifiers (column 2 lines 51-55).

Clark teaches including identifying mechanism in cartridge for automatic identification purpose (column 5 lines 46-49), which would have been obvious to one of ordinary skill in the art to recognize that the recognition mechanism of Thomas can be modified into being included in cartridge convenience.

Johansson et al. teach upgrading cellular telephone with a software upgrade cartridge (column 3 line 34 to column 4 line 33), which means checking software identification or code matching software resides in cellular telephone is must to further proceed upgrade. Johansson et al. also teach having recognition mechanism to determine whether first and second identification numbers match with code to provide functionality (column 5 lines 15-30, column 6 line 58 to column 17 line 6), which would have been obvious to one of ordinary skill in the art to recognize and incorporate into Thomas to have software code matching thereafter network operator identification number difference ascertained, in order to further ascertain software upgrade compatibility.

Therefore, it would been obvious to one of ordinary skill in the art at the time the invention was made to incorporate equipping modular wireless device with cellular software and having call-processing software to include identifiers taught by Vilppula et al. into the wireless modular device of Thomas with modifying into having cartridge to carry recognition mechanism to verify software upgrade compatibility taught by Clark and Johansson et al., in order to equip the

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wireless modular device cellular capability and provide cartridge with network software upgrade verification capability.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent#5465401) in view of Vilppula et al. (US Patent#6961587), Johansson et al. (US Patent#5418837), and Aberg (US Patent#6993362).

Regarding claim 9, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

But, Thompson, Vilppula et al., and Johansson et al. do not expressly disclose wherein the system software has means for expanding the list to incorporate information concerning additional wireless communication services.

However, it would have been obvious to one of ordinary skill in the art to recognize that a list of expansion must exist for additional wireless communication application selection.

Aberg teaches system software has means for expanding the list to incorporate information concerning additional wireless communication services (column 5 lines 51-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate having expandable list taught by Aberg into the modular wireless device of Thompson, Vilppula et al., and Johansson et al., in order to enable additional wireless communication service selections.

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8. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent#5465401) in view of Vilppula et al. (US Patent#6961587), Johansson et al. (US Patent#5418837), and Cooper (U.S. Patent#6321079).

Regarding claim 29, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 27.

But, Thompson, Vilppula et al., and Johansson et al. do not expressly disclose the means for unlocking the locking mechanism consists of a wireless network communicating a pass code to the cartridge.

Cooper teaches the means for unlocking the locking mechanism consists of a wireless network communicating a pass code to the SIM card (abstract, column 1 line 52 to column 2 line 54). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate network operator sending pass code to unlock SIM card taught by Cooper into the modified modular wireless device of Thompson, Vilppula et al., and Johansson et al., in order to ensure the cartridge content match network service.

9. Claims 11-14, 17-19, 22, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent#5465401) in view of Vilppula et al. (US Patent#6961587), Johansson et al. (US Patent#5418837), and Tayloe (US Patent#5987325).

Regarding claim 11, Thompson, Vilppula et al., and Johansson et al. teach the limitation of claim 1.

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Johansson et al. teach wherein said memory further includes a storage bin for storing subscriber information used to identify one of the device and the user of the device; said storage unit further including an additional bin for storing subscriber information used to identify the device or the user of the device; and the modular wireless device further includes means for this subscriber information to be exchanged between the shell and cartridge (column 5 lines 22-27), but Thompson, Vilppula et al., and Johansson et al. do not expressly disclose the information being used by communication network.

Tayloe teaches subscriber identification being store in SIM cartridge and also in data memory of a mobile station (column 6 lines 1-16), which would have been obvious to one of ordinary skill in the art to recognize the exchange between the mobile station and SIM cartridge when inserting another SIM cartridge.

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate exchanging subscriber information between shell and cartridge taught by Tayloe into the modular wireless device of Thompson, Vilppula et al., and Johansson et al., in order to provide communication network registration information.

Regarding claim 12, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation of claim 11.

Tayloe teaches wherein one of the storage bin and the additional bin is a SIM card (column 3 lines 33-41).

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Regarding claim 13, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation

of claim 11.

Tayloe teaches exchanging information to check which of the storage bin and the additional bin

contain subscriber information (column 4 lines 26-28).

Regarding claim 14, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation

of claim 11.

Tayloe teaches further including a means for determining to use one of the subscriber

information in the shell and the subscriber information in the cartridge when both the storage bin

and the additional bin contain subscriber information (column 4 lines 26-28, column 4 lines 31-

38).

Regarding claim 17, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation

of claim 11.

Vilppula et al. teach the first memory storage bin in the shell has means to store subscriber

information related to more than one air-interface standard (column 5 lines 7-50).

Regarding claim 18, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation

of claim 17.

Vilppula et al. teach the subscriber information in the storage bin is displayed according to the

air-interface standard it corresponds to (column 7 lines 24-63).

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Regarding claim 19, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation of claim 11.

Tayloe teaches wherein the cartridge has a means for obtaining the subscriber information in the storage bin and communicating this subscriber information to a wireless network (column 4 lines 26-28).

Regarding claim 22, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation of claim 12.

Tayloe teach wherein both storage bin and the additional bin are SIM cards (105 of Fig. 2); and the SIM cards include user data; and the modular wireless device includes means for synchronizing the user data in the SIM cards (column 2 line 66 to column 3 line 17, column 4 lines 26-30).

Regarding claims 26 and 30, Thompson, Vilppula et al., and Johansson et al. teach the limitations of claims 23 and 27.

But, Thompson, Vilppula et al., and Johansson et al. do not expressly teach the locking mechanism is automatically activated when the cartridge is removed from the shell.

Tayloe teaches the locking mechanism is automatically activated when the cartridge is removed from the shell (column 6 lines 1-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate locking automatically when removing cartridge from the shell taught by Art Unit: 2618

Tayloe into the modified modular wireless device of Thompson, Vilppula et al., and Johansson et al., in order to protect subscriber identification from being misused or stolen.

10. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent#5465401) in view of Vilppula et al. (US Patent#6961587), Johansson et al. (US Patent#5418837), Tayloe (U.S. Patent#5987325) and Suprunov (U.S. Patent#6405030). Regarding claim 20, Thompson, Vilppula et al., Johansson et al., and Tayloe teach the limitation of claim 19.

But, Thompson, Vilppula et al., Johansson et al., and Tayloe wherein the subscriber information contains data a wireless network needs to forward calls from a first phone number to a second phone number.

Suprunov teaches a memory card obtained the data a wireless network needs to forward calls (column 4 lines 11-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate call-forwarding data in the memory card taught by Suprunov into the modified modular wireless device of Thompson, Vilppula et al., Johansson et al., and Tayloe, in order to provide user call-forwarding service.

Regarding claim 21, Thompson, Vilppula et al., Johansson et al., Tayloe, and Suprunov teach the limitation of claim 20.

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Suprunov teaches the data is an executable that the wireless network can execute to forward calls from a first phone number to a second phone number (column 4 lines 11-25).

#### Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhiyu Lu whose telephone number is (571) 272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Zhiyu Lu

December 13, 2007

NAY MAUNG SUPERVISORY PATENT EXAMINER